

Table 2

Deduced Amino Acid Sequence from the cDNA

5 MDQNSYRRRSSPIRTTTGGSKSVNFSELLQMKYLSST
MKLTRTFTTCLIVFSVLVAFSMIFHQHPSDSNRIMGFAEA
RVLDAGVFPNVTNINSDKLLGGLLASGFDEDSCLSRYS
VHYRKPSYPKPSYLISKLRNYEKLHKRCGPGTESYKKA
10 LKQLDQEHIDGDGECKYVWVWISFSGLGNRILSLASVFLYA
LLTDRVLLVDRGKDMDDLFCPEFLGMSWLLPLDFPMTD
QFDGLNQESSRCYGYMVKNQVIDTEGTLSHLYLHLVHD
YGDHDKMFFCEGDQTFIGKVPWLIVKTDNYFVPSLWLIP
GFDDELNKLFPQKATVFHHLGRYLFHPTNQVWGLVTRY
15 YEAYLSHADEKIGIQVRVFEDEDPGPFQHVMDQISSCTQK
EKLLPEVDTLVERSRHVNTPKHKAVLVTSLNAGYAENLK
SMYWEYPTSTGEIIGVHQPSQEGYQQTEKKMHNGKALA
EMYLLSLTDNLVTSWSTFGYVAQGLGGLKPWILYRPEN
20 RTTPDPSCGRAMSMEPCFHSPPFYDCKAKTGIDTGTLV
PHVRHCEDISWGLKLV

Table 3
cDNA Sequence

5 ATGGATCAGAATTCGTACAGGAGAAGATCGTCTCCGAT
CAGAACCACTACCGGCGGTTCAAAGTCCGTTAATTTCTC
CGAACTACTTCAAATGAAGTATCTCAGCTCCGGTACGAT
GAAGCTCACGAGAACCTTCACTACTTGCTTGATAGTCTT
CTCTGTACTAGTAGCATTCTCAATGATCTTTCACCAACA
10 CCCATCTGATTCAAATCGGATTATGGGTTTCGCCGAAGC
TAGAGTTCTCGACGCGGAGTTTTCCCAAATTCTGATAA
GCTTCTCGGAGGGCTACTTGCTTCTGGTTTTGATGAAGA
TTCTTGCCCTTAGTAGGTACCAATCAGTTCATTACCGTAA
ACCTTCACCTTACAAGCCATCTTCTTATCTCATCTCTAAG
15 CTTAGAACTACGAAAAGCTTCACAAGCGATGTGGTCC
GGGTACTGAATCTTACAAGAAAGCTCTAAAACAATTGA
TCAAGAACATATTGATGGTGATGGTGAATGCAAATATGT
TGTGTGGATTCTTTTAGCGGCTTAGGGAACAGGATACT
TTCTCTAGCCTCGGTTTTTCTTACGCGCTTTAACGGAT
20 AGAGTCTTGCTTGTGACCGAGGGAAAGACATGGATGA
TCTCTTTTGCAGCCGTTTCTCGGTATGTCGTGGTTGCT
ACCTTTAGATTCCCTATGACTGATCAGTTTGATGGATTA
AATCAAGAATCATCTCGTTGTTATGGATATATGGTGAAG
AATCAGGTGATTGATACTGAGGGAACTTTGTCTCATCTT
25 TATCTTCATCTTGTTGATGATTATGGAGATCATGATAAGA
TGTTCTTCTGTGAAGGAGACCAAAACATTCATCGGGAAAG
TCCCTTGTTGATTGTTAAACAGACAATTACTTTGTTCC
ATCTCTGTGGTTAATACCGGGTTTCGATGATGAACTAAA
CAAGCTATTTCCACAGAAAGCGACTGTCTTTCATCACTT
30 AGGTAGGTATCTTTTTACCCAACTAACCAAGTATGGGG
CTTAGTCACTAGATACTACGAAGCTTACTTATCGCATGC
GGATGAGAAGATTGGGATTCAAGTAAGAGTTTTCGATGA
AGACCCGGGTCCATTTACGCATGTGATGGATCAGATTTT
ATCTTGTA CTCAAAAAGAGAACTTCTACCTGAAGTAGA
35 CACACTAGTGGAGAGATCTCGCCATGTTAATACCCCCAA
ACACAAAGCCGTGCTTGTACATCTTTGAACGCGGGTTA
CGCGGAGAACTTAAAGAGTATGTATTGGGAATATCCGA
CATCAACTGGAGAAATCATCGGTGTTTCATCAGCCGAGC
CAAGAAGGTTATCAGCAGACCGAAAAAAGATGCATAAT
40 GGCAAAGCTCTTGCGGAAATGTATCTTTGAGTTTGACA
GATAATCTTG TGACAAGTGCTTGGTCTACATTTGGATAT
GTAGCTCAAGGTCTTGGAGGTTTAAAGCCTTGGATACTC
TATAGACCCGAAAACCGTACAACCTCCGATCCTTCGTGT
GGTCGGGCTATGTCGATGGAGCCTTGTTCCTCGCC
45 TCCATTCTATGATTGTAAAGCGAAAACGGGTATTGACAC
GGGAACACTAGTTCCTCATGTGAGACATTGTGAGGATAT
CAGCTGGGGACTTAAGCTAGT ATGA

Table 4

Genomic Sequence

5 BAC T18E12 Accession AC005313 nucleotides 41227-43179 (contains an intron).

atggatcagaattcgtacaggagaagatcgtctccgatcagaaccactaccggcggttca
 aagtcggtaatttctccgaactacttcaaatgaagtatctcagctccggtacgatgaag
 10 ctacgagaaccttactacttgcctgtagtcttctgtactagtagcattctcaatg
 atctttaccaacacccatctgattcaaatcggattatgggttcgccgaagctagagtt
 ctgcagccggagtttcccaaatgtactaacatcagtagtggttctccaagcaaaag
 tttgagctttattactttagatctcgttcttactacacgcatttgcctctgtatgcc
 atagctctggtcgatttcaattgagatctatactcataaaaattgagctttgtcagt
 15 cacaagactactattttggttgagtgttttggtgaaaaagtgctctttgtttgg
 tctcagcttagactgttacatcgttttccgagtttttagattttgtctgattctg
 tttgtttgtagattctgataagctctcggagggtactgtctctggtttgatgaa
 gattcttgccttagtaggtaccaatcagttcattaccgttaaaccttaccctacaagcca
 tcttctatctcatcttaagcttagaaactacgaaaagcttcacaagcgatgtggtccg
 20 ggtactgaatcttacaagaaagctctaaaacaacttgatcaagaacataitgatggtag
 ggtgaatgcaaatatgtgtgtggtattcttttagcggcttagggaacaggatacttct
 ctagcctcggttttctttagcgcgttttaacggatagagcttgcctgttgaccgaggg
 aaagacatgtagatctcttttgcgagccgttctcggtagtgcgtggttgctacctta
 gatttccctatgactgatcagtttgatggaataaataagaatcatctcgttggatgga
 25 tatatggigaagaatcaggtagtgatgactgagggaaacttgtctcatcttctcat
 ctgttcatgattatggagatcatgataagatgttcttctgtgaaggagaccaaacttc
 atcgggaaagtcccttgggtgattgttaaacagacaattacttgttccatctctgtgg
 ttaataccgggttccgatgatgaactaaacaagctattccacagaaagcgactgtctt
 catcacttaggtaggtagtcttttccccaactaaccaagtaggggcttagtactaga
 30 tactacgaagcttactatcgcacatgcggatgagaagattgggattcaagtaagagtttc
 gatgaagacccgggtccatttcagcatgtgatggatcagattcatctgtactcaaaaa
 gagaaacttctacctgaagtagacacactagtgagagatctcgccatgttaataccccc
 aaacacaaagccgtgctgtcacatcttgaacgagggttacgaggagaactaaagagt
 atgtattgggaatatccgacatcaactggagaaatcatcgggttcatcagccgagccaa
 35 gaaggttatcagcagaccgaaaaaaagatgcataatggcaaagctcttgcggaaatgtat
 cttttgagttgacagataatctgtgacaagtgttggctacatttgatatgtagct
 caaggcttggaggtttaaagccttggatactctatagaccgaaaaccgtacaactccc
 gatccttcgtgtgtcgggctatgtgatggagccttgttccactgcctccattctat
 gattgtaaagcgaaaacgggtattgacacgggaacactagttcctcatgtgagacattgt
 40 gaggatacagctggggacttaagctagtagta

Table 5**Adjacent homologous gene on BAC****BAC T18E12 Accession AC005313 nucleotides 43562-45245**

5 atgagaatcacagagatcttagcttggttcatggttttagtcctgtctcgctagtaatc
 gtagccatgtttggatatgatcaaggaaatggctttgtacaagcatctagattcataaca
 atggaaccaaagtgcacatcctcatcagatgattcatcactagtcagagagatcaagaa
 caaaaaggtaaaacttacttctcttttggttgaaatgtttctaaattttcttgaa
 tgtttcatcagattctgtagatatgtctctgcttgagggtactgtatctggttcaa
 10 gaaagagcttgccttgagtagataccaatcttaccttaccgtaaagcttcaccgtataa
 acctcgttgcattacttccaagcttagagcttacgaagagctcataaaagatgtgg
 accgggaacaagacagtataccaatgcagaaagattgctaaacagaaacaaacaggatga
 gatggaatcacaaggatgcaagtagttgtttggatgtcgtttagcggattaggaaacag
 gattatcagattgtctgtgttctgtatgcaatgttgacagatagagtctgtgtgt
 15 tgaaggagggggaacagttcgcggatttattctgcgaaccgttctcgataccacttgggt
 actaccgaaagattcaccttagctagtcagttcagttggcttggcaaaactcagctca
 ctgccatggagatatgtgaagaggaaactgattaatgaatcctctgttctgtctgtc
 tcatctctatctcatctagctcatgactacaatgagcacgacaaaatgttctctgtga
 agaagatcaaaaatctctaaagaatgttccctgggtgatcatgaggacaaaacttctt
 20 tgcaccgtctcttttctgatttcttcttgaagaagagctcggtatgatgttccga
 gaaaggaaacggttttaccatttaggtcgttacctttccatccttcaaatcaagctcgt
 gggactaatcacaagatactatcaagcttacttagccaaagctgatgaaaggattggct
 tcaataagagctttgatgagaaatccggcgtatctcctcagtcacaaagcaaatcat
 ttcgtgtgttcaaaacgagaatctgttaccgagactaagcaaagggtgaagaacaatacaa
 25 gcagccatcagaagaagagttgaaactcaaatctgtcttggtcaccctttaaacaacagg
 atactttgagatcttgaacaaatgtattgggaaaatccaactgtaacaagagatgtgat
 tggaaatacatcagccaagtcataaggaacatcaacaaacagagaagctaatagcataacag
 gaaacttgggcagagatgtacttactcagcttaacggataagttgggtattagtgctg
 gtctacatttgggttatgtactcaaggacttgaggattaagagcttggattctgtataa
 30 acaagagaatcaaaaccaaacccaaatccaccttgcggtagagctatgtaccagatccttg
 ttccatgctcctccttactatgattgcaaagcaaagaaaggaactgacactggtaatgt
 tgtcccgcatgttagacattgtgaagatattagctggggacttaagctgttgacaactt
 ttag

35 Protein translation:

MRITEILALFMVLVPVSLVIVAMFGYDQGNQFVQASRFITMEPN
 VTSSSDSSSLVQRDQEKKDSVMSLLGGLLVSGFKKESCLSRYSYLYRKASP
 YKPSLLLSKLRAYEELHKRCGPGRQYTNAERLLKQKQTGEMESQGCKYVWWM
 40 SFSGLGNRISIASVFLYAMLTDRVLLVEGGEQFADLFCEPFLDTTWLLPKDFTLA
 SQFSGFGQNSAHCHGDMLEKRLKLINESSVSSLSHLYLHLAHDYNEHDKMFFCEE
 DQNLKKNVPWLIMRTNFFAPSLFLISSFEEELGMMFPEKGTVFHHLGRYLFHPS
 NQVWGLITRYYQAYLAKADERIGLQIRVFDEKSGVSPRVTKQIISCVQENENLLPRL
 SKGEEQYKQPSEELKLKSVLVTSLTTGYFEILKTMWENPTVTRDVIGIHQPSH
 45 EGHQQTEKLMHNRKAWAEMYLLSLTDKLVISAWSTFGYVAQGLGGLRAWILYK
 QENQTNPNPPCGRAMSPDPCFHAPPYYDCKAKKGTDTGNVPHVRHCEDISW
 GLKLVDNF

Table 6

Arabidopsis thaliana cDNA clone 202C15T7, mRNA sequence [Arabidopsis thaliana]

5

DNA Sequence

10

TGTTCCATCNTTATGGTTTAATCCAACNTCCAAACCGAACTAACGAAGCTGT
TTCCGCANAAAGAAACCGTGTTTCACCACTTGGGTCGGNATCTTTTTNACCCT
AAAAATCAAGTTTGGGATATCGTCACNAAGTACTACCATGNTCACTTATCCAA
AGCAGATGNGAGACTCGGGATTCAAATTCGGGTTTTTNGCGATCAAGGTGGA
TACNACCAACACGTCATGGACCAGGTCATATCCTGCACACA

15

Translation of 202C15T7 in correct ORF.

VPSLWFNPTXQTELTCLFPXKETVFHHLGRXLFXPKNQVWDIVTKYYHXHLSKA
DXRLGI QIRVFXDQGGYXQHVMQVISCT

Table 7**Arabidopsis thaliana cDNA clone 170K19T7, mRNA sequence [Arabidopsis thaliana]**

5 TGGNATTACAGATTACAAAGATACGAGGNTCTTCATAGACGTTGTGGACCATT
CACTAGATCCTATAACTTAACACTTGACAAACTCAAGTCGGGAGATCGGTCTG
ACGGTGAAGTTTCTGGTTGTAGATATGTAATATGGTTGANTTCCAATGGTGAT
10 CTTGGGAATAGGATGCTGAGTCTAGCTTCANCTTTNCTTTATGCTCTCTTAAC
AAATAGGTTTTNACTTGTGCGAACTAGGAGTTGACATGGCTGATCTTTCTNCG
AGCCATTTCCAAACACTACTTGGTTTCTTCCCCCAGAGTTTCCGCTCAACAGC
CACTTCAACGAGCAAGTCTCTTTCTAACGGAAATTNTTGGCAACCCCGATGG
GTTCATAATCGNNCATGTAGTTCCGTNATTCCCAGTGNCCAACAAAAAGCTTT
15 TTNTTTTTGNNAGGNTAGCCAAGTTTTTTTTNGGGGAAACCCCTGGTTGTCTT
AAAANC GG GTAGNT TTTTTTCCCAACTTTTTTTTNA

Table 8
T31J1TR TAMU Arabidopsis thaliana genomic clone T31J1, genomic survey
sequence

5 CAAGCTTACAAGAAAGCAACGGAGATTCTTGGTCATGATGATGAGAATCATTC
AACCAAATCTGTTGGTGAATGCAGATACATTGTGTGGATTGCTGTTTATGGGC
TAGGAAACAGAATACTTACTCTTGCTTCTCTGTTTCTCTATGCTCTCTTGACTG
ACAGAATCATGCTTGTTGACCAACGTACGGACATAAGTGACCTCTTCTGTGA
GCCTTTTCCAGGTACTTCCTGGCTACTCCCTCTGGATTTTCCACTAACAGATC
10 AATTAGATAGCTTCAACAAGGAATCTCCGCGCTGTTACGGAACAATGTTGAA
GAATCATGCCATTAACCTCAACTACAACAGAAAGCATCATCCCCTCGTACCTCT
GTCTTTATCTTATTCACGATTACGACGATTATGATAAGATGTTCTTCTGTGAAA
GTGACCAAATTCTCATCAGGCAAGTCCCTTGGTTGGTCTTCAACTCGAATCTT
TACTTTATCCCATCTCTATGGTTGATCCCTTCTTTTCAGTCAGAATTAAGCAAG
15 CTATTCCCACAGAAAGAAACCGTCTTTCACCATTTGGCTCGCTATCTTTTTCA
CCCGACTAACCAAGTTTGGGGCATGATCACAAGATCCTATAATGGGTATTTAT
CAAGAGCTGATGAGAGACTTGGGATTCAAGT

20

Table 9

F16M20TR IGF Arabidopsis thaliana genomic clone F16M20, genomic survey sequence

5

TTCTCCTTTTGACCTTTTTTTTTTGTATATGTTTCAGACGAATCCGAAACACCGG
GGCGGGATAGACTAATAGGAGGGCTTTTAACCGCAGATTTTCGATGAAGGTTT
TTGCTTGAGTAGGTATCATAAACTTTCTTGTATCGCAAGCCTTCACCATACA
AGCCGTCTGAATATCTTGTCTCGAAGCTTAGAAGCTATGAGATGCTTCACAAA
CGTTGCGGTCCAGGGACAAAAGCTTACAAGGAAGCAACAAAGCATCTTAGTC
ATGATGAGAATTATAATGCAAGCAAATCAGATGGTGAATGCCGATACGTTGTG
TGGCTCGCTGATTACGGGCTTGAAACCGACTACTCACTCTTGCTTCTGTGT
TCCTCTACGCTCTCTTGACTGATAGAATCATTCTTGTTGACAACCGCAAGGAT
ATTGGTGATCTCTTATGCGAGCCATTTCCAGGTACTTCATGGTTGCTTCCTCT
CGACTTTCATTGATGAAATATGCTGATGGATACCACAAGGGATACTCTCGTT
GTTACGGAACAATGTTGGAAAATCATTCCATCAACTCGACTTCATTCCCGCCA
CATCTATATAGGCATAACCTTCATGATTCAAGGGATAGTGATAAGATGTTCTT
CTGCCAAAAAGATCAAAGTTTGATTGACAAAGTCCCT

10

15

20

Table 10**F16A14-T7 IGF Arabidopsis thaliana genomic clone F16A14, genomic survey sequence**

5 GGGGGGGATGGTTACTGACTCCTATATGCCGAATCTTTGACATCTCTGTTTC
AATGGCCACAATCCTATTGAATCAGCTATATTAAGAAAATTATAAATCATCAA
ATAGCTTAAGACCATCGTTCCACGATCCTCACAATGCCTTNCNAGAGGAAC
TACCTTCCCGGAGTTAGTTCCCATTCGGGTTACATCCATGAGACGGAAGA
GTAAGGTGACNATGGTCCATCGACGTGGATTGAATACNCTGTGGATCAGGAG
10 CTGTACGACCTGCTGGCTGATAAAGTAACCATGGCTTTAATCCTCCAAGAATA
TGAGCAACATATCCNAATGTAGACCTTGCACTTGTGACTATTTTATCAGTTAG
ACTTAGAAGATACNTCTCGGCGAGCGCCTTTTGGTCGTGTANCTTCTTGTCTT
NTGTTGAACCCTTTCTCCACTTGGCTGATNAACTTCAATGATCTCCCCTGCTG
AACTCGGTCGTTCCCAATACATGTTCTNTAAGGTNTCAGAGTACTCTGGATAC
15 NAAGATGTGACNAGAACAGCTNTAAGTGTCTGGCTTCTTGAATATATGACTTT
TGGCTCTTCTTGTGCACCTTGTTGAGGCAAAAGGTCTCTCTTCTGTCCAAC
TACAACTTGATCCNTTNCCTGTAAANATTTCCCCTCGAATGCTGAACTACCC
CTTCTCTAATAACCNCTCTCCTCCGCTCCTGAATAACTTCGGCTTGCTAGA
ATTCTCTCATTACCTCCCCACTTGAACCC CCCC GCGGTACAAACC
20

Table 11
T26M12-T7 TAMU Arabidopsis thaliana genomic clone T26M12, genomic
survey sequence [Arabidopsis thaliana]

5 ATTCGTGATGAGTACTATGCAAGCGAATCAAATGGTGACTGCAGATACATTGT
ATGGCTAGCTAGGGACGGGCTTGGAAACAGATTAATTACTCTTGCTTCCGTG
TTTCTCTACGCTATCTTGACTGAGAGAATCATTCTTGTTGACAACCGCAAGGA
TGTTAGTGATCTCTTATGTGAGCCATTTCCAGGTACTTCATGGTTGCTTCCGC
10 TTGACTTTCCAATGCTGAATTATACTTATGCTTATGGCTACAATAAGGAATACC
TCGTTGTTACNGTACAATGTTGGAAAATCATGCCATCAACTCGACTTCAATTC
CGCCACATCTATATCTCCATAACATCCATGAATCTAGGGATANTGATAAGCTG
TTCTTCTGCCAAAANGGATCAAAGTTTTTTATCGACANATTTCCATGGGTAAAT
TAATTCANAACCAATGCCTTACTTTGGTTCCCAATCTTTATGGGCTGAAATCC
15 CANCTTTTCCAN ACCAAAACTAAGTTTAAGCTTATCCCCGGCAGAAAAGG

Table 12**ATTS3691 Gif-SeedA Arabidopsis thaliana cDNA clone YAY241, mRNA
sequence [Arabidopsis thaliana]**

5	AATGGTGATCTTGGGAATAGGATGCTGAGTCTAGCTTCAGCTTTTCTTTATGC
	TCTCTTAACAAATAGGTTTTAACTTGTCGAACTAGGAGTTGACATGGCTGACC
	TTTTCTGCAAGCCATTTCCAAACACTACTTGGTTTCTCCCCCAGAGTTTCCG
	CTCAACAGCCACTTCAACGAGCAGTCTCTTCTACGCAATTCTGGCAACCCGA
	TGGTTGCATATCGACATGTAGTTCGTGAATTCCAGTGACCAACAAAAGCTTTT
10	CTTTTGTGAGGATAGTCAAGTTTTGT

**Table 13 T22N7TRB TAMU Arabidopsis thaliana genomic clone T22N7,
genomic survey sequence [Arabidopsis thaliana]**

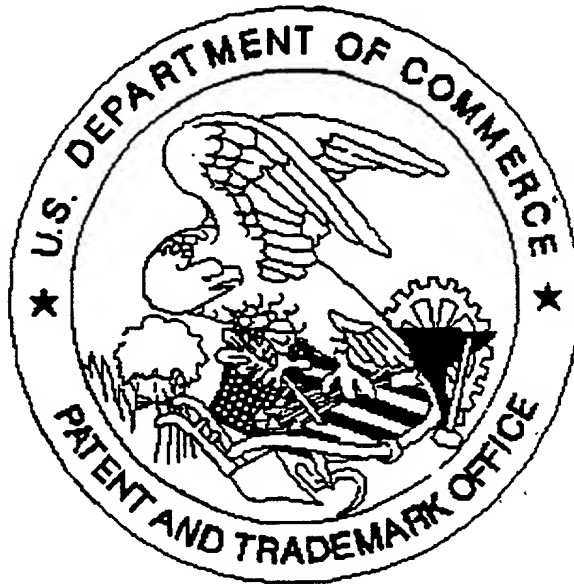
5

CAAGCTTCGAGACAAGATATTCAGACGGCTTGTATGGTGAAGGCTTGCGATA
CAAGAAAGTTTTATGATACCTACTCAAGCAAGAACCTTCATCGAAATCTGCGG
TAAAAGCCCTCCTATTAGTCTATCCCGCCCCGGTGTTTCGGATTCTGTCTGAA
CATATAACAAAAAAAAAAGGTCAAAGGAGAATTCTTTGAGCTAACAATG

Table 14**31198 Lambda-PRL2 Arabidopsis thaliana cDNA clone 170K19XP 3', mRNA sequence [Arabidopsis thaliana]**

5	AAANNCCTTAANCAANTTTTACCGAANTCAAGGCGTTTACCCACTTCTCNCCN
	GGTTTTAAGGTTCAAGGCGNNTTTTGGNAACCCNACAGTGATGGNGAGTTAT
	CCGCGTTTACAANCCGACTACAAGGCTTCCAAAAACCCCGNGGAACNTGG
	AANTTAAGAGANCATGGCTGAGATATACCTTCTGAGTTGTTCTGATGCNCTG
	GTGGTCACAGGTTTATGGTCCTCACTCGTGGAGGTTGCCTCATGGCCTTGGA
	GGGTTGAAGCCATGNGTGTTGAACAAAGCTGAGAATGGGACTGCCCATGAG
10	CCTTACTGTGTGAAAGCAAGATCAATAGAGCCCTGTTCCCAAGCGACATTGT
	TCCATGGCTGTAAAGATTGAAACATGAATAGAGTCTCGAGGGCTTTTTTTGCC
	TTTAATAGATGTTGTACGGTCAAGAATTTTCAAGAGTTGCCCAATAGACACGTAA
	GGAATATTAGGATTAAGTATGTATCAGTTCATGACTTGATCGAGTTCTATATTC
	TTTTCAAT
15	

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